

ROCKS and MINERALS

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PETER ZODAC

July
1944

Contents for July, 1944

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ROCKS and MINERALS

PEEKSKILL, N. Y., U. S. A.

The official Journal of the Rocks and Minerals Association

Chips from the Quarry

Diamond Found In West Virginia

In April, 1928, William P. "Punch" Jones, a 12 year old lad, while pitching horseshoes with his father, Grover C. Jones, made a pitch which kicked up a bright glassy object. The object was picked up by the lad, who not knowing what it was but fascinated with its beauty, treasured it as a curio. On May 5, 1943, he sent it to Prof. Roy J. Holden, for identification. Prof. Holden pronounced it a diamond and in honor of the discoverer it was named the "Punch" Jones diamond. Its weight of 34.46 metric carats makes it the largest diamond ever found in eastern United States and one of the largest ever found in North America. It is of good color. The stone is now on exhibit in the U. S. National Museum, in Washington, D. C.

The discovery was made on a vacant lot at his home in Peterstown, in southern West Virginia. The point of discovery is only a few hundred yards east of the Va.-W. Va. line.

The "Punch" Jones diamond and many other stones that have been found in the eastern United States are described in the Feb., 1944, issue of the *Bulletin of the Virginia Polytechnic Institute*, Blacksburg, Va., titled "The 'Punch' Jones and other Appalachian Diamonds", by Roy J. Holden. The *Bulletin* contains 32 pages with 5 figures.

Pasadena Junior College

The annual excursion of the geology classes of Pasadena Junior College, Pasadena, Calif., was held on May 19-21, 1944. This year the group visited the Joshua Tree National Monument of Southern California.

Along the route, many interesting geological formations were examined. At Granite Coves (10 miles s. w. of 29 Palms P. O.),

some wonderful feldspar crystals were collected—the crystals embraced Carlsbad and Baveno twins, etc. About 500 feet of Kodachrome movies and hundreds of slides were taken.

The excursion was under the leadership of Mr. E. Van Amringe.

Although gas and tire restrictions are still in force, the above field trip was permitted because of the great educational and scientific value to the students.

Hampson on 1900 Mile Bicycle Trip

Arnold G. Hampson, a 15 year old member of the R. & M. A., from W. Barrington, R. I., is on a 1900 mile bicycle trip through New England, New York, New Jersey, and Pennsylvania. A boy friend is accompanying him.

Three of the many interesting localities the two young collectors will visit are the Fisher quarry in Topsham, Maine; the Cornwall magnetite mine at Cornwall, Penn.; and the Woods chrome mine at Texas, Penn.

Notice to Members Now Serving in Italy

We have a member in Rome, Italy, from whom we have had no word since the latter part of 1941. His name and address: Roberto Palumbo, 211 Corso Trieste, Rome.

We would appreciate it very much if some member would look him up and will let us know how he is.

Mr. Palumbo is a dealer in minerals and can speak English, so a treat, mineralogically, would be in store for any American collector who might visit him.

Mr. Palumbo joined the Association on April 5, 1928.

STIBNITE OCCURRENCE IN BELGIAN CONGO

By **HORATIO C. RAY**

San Juan, Puerto Rico

In 1924, while employed in the diamond fields in southern Belgian Congo, West Africa, I had occasion to examine an antimony prospect in that country. The deposit was not far from the town of Luluabourg. The vein was small (narrow), of good grade but at that

time antimony had no commercial interest because the deposit was too far from the ocean, and for other reasons. The vein may still be there, unworked.

The ore body contained some beautiful acicular crystals of stibnite which would delight the heart of any collector.

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((The Official Journal
of the
ROCKS and MINERALS
ASSOCIATION))

Whole No. 156

HAVE YOU A "DEAD" OLD FAITHFUL IN YOUR FRONT YARD?

By EDNA CULBERTSON

Box 1832, Casper, Wyo.

When ROCKS AND MINERALS readers see in the newspaper that so-and-so has discovered some new or startling thing, they may wonder how the party knew just where to search among the millions of square miles on this earth's surface. But after all it is so simple; we happened to have a daughter who arranged everything by marrying a chap from the particular region of our find. Thus, item No. 1 in the life of a discoverer should be to have a daughter, item No. 2, get her married—now you are all set to become a modern Columbus. And thus folks, from these explicit instructions, we confidently expect all readers of ROCKS AND MINERALS to shortly report fabulous finds from simply following our recipe.

We had gone to visit our daughter and her family, and they, knowing our collecting phobia, told of a young man friend of son-in-law who had brot in some "white rock" that we might like to see. That magic remark stopt all other activity (as always is with rock hounds)—we all piled into the car, ran the chap down, and pried from him as closely as possible just where the "white rock" came from. (The "white rock" turned out to be Aragonite, but so much the better.) Thither we went, taking along the new grandson, then just ten days old (him we intend to make a geologist, paleontologist, pebble pup, or what have you.)

We were tramping over partly sage-covered upland, when I stept on what

appeared to be a hump or bump, more like a solid ant hill, for all the world like one of those shallow wooden bowls up side down. It was perhaps three feet across and several inches high. I gave it a kick with my heavy field boots, and got a blow on my toe in return. That refusal to be kicked, got me down on my hands and knees for a closer examination, with the good old collector formula expect anything, overlook nothing. What I saw at first glance made me go after Friend Husband, and together we pawed and scraped clean the bump, finding it about the size of a rain-barrel, increasing in size as it extended downward into the ground. The outer shell was siliceous sinter, and there was a central ring, the top of a column about the size of an auto steering wheel; the ring was perhaps a half inch wide and of bluish chalcedony, it was crammed full of massed white rock crystals, pressed out of shape but all pointing inward or upward. We were mystified as to what it was, but it looked good to us, and we went into the county seat where my Husband had me file a mineral claim on the surrounding land.

We then wrote to a selected list of museums, and among others, had a reply from Prof. Harry Berman, Curator of the Harvard University mineralogical museum at Cambridge, Massachusetts. Prof. Berman, not getting head or tail from our amateur ravings, asked a personal friend, Prof. Wahlstrom of Colorado University, Boulder, Colorado, to get us to show the vug to him, and he to report thereon.

Prof. Wahlstrom, and an assistant, got us to take them to the site, where they dug a trench around the specimen about 4 or 5 feet deep, took photographs, and made a favorable report to the Eastern University authorities, recommending that they accept our sale price. Prof. Berman was so enthused that he made a personal visit to the vug (in situ, which means to the learned: where it is in the ground. We had to ask what it meant the first time we heard it,) and he offered to purchase an eight-inch slice.

If you ROCKS AND MINERALS readers care to visit your local library, you can get a copy of Prof. Carroll Lane Fenton (& Wife's) publication: *The Rock Book* and find therein under "hot water pipes" a description of a small find like ours, also an excellent photograph.

Our Vug is simply a "dead" Old Faithful geyser, extending no one knows how far into the earth; ages ago it spouted live steam thru the chalcedony column or pipe. It is said there are few places where geysers are found: New Zealand, Iceland, Yellowstone Park, and a few small ones in California. While our vug is in a manner of speaking in the vicinity of Yellowstone Park, it may be too far by over a hundred miles to be a part of that field. I do not wish to be quoted, or to pose as an authority on

geysers or natural phenomena; I can only recite what I have seen, and explain what I have read from professional papers, and from what scientists have told me and written me about this specimen: which is: that in some manner, unknown to us, ages ago this column got plugged shut; the gases contained therein formed into rock crystals, and the steam was shut off or escaped thru other channels.

We cannot help wondering how far down this massive pipe extends, and if we broke it off far enough down, would the steam spout again. Another curious item I will mention while it is fresh in my mind, is: that not far from this vug the ground raises 30 or 40 feet, and on the upper level the surface of the ground is covered several inches with a layer of grey clam shells, egg size, weathered until they cannot be lifted or transported except in a soft container, and they themselves disintegrate in the open air. They seem to be a limestone now. Thus, whatever cataclysm that covered these geysers (for there must be others in the vicinity, that careful search will bring to light) occurred, must have covered this geyser to a depth of the higher land, or e'se broke off the geyser down to its present height. Your guess is as good as mine.

The Smithsonian Institution (Wash-



The vug in situ

ington, D. C.) wrote us that they have a vug similar to ours, not quite so large; and also gave data on similar vugs. Rockefeller Foundation sent a large volume on geysers, and several museums have expressed a wish to have a slice of the monster if and when we get him to the surface. "Ah, there's the rub," I judge, when we have dug a trench all around the vug as far down as we wish to break it off, that it will be possible to break off the column and raise it onto a truck—BUT, how will it break—so as to not shatter the mass of crystals (which are perhaps the size of an inch length of lead pencil and less). How will we insure not injuring the trench diggers, for the mass must weigh TONS? We had two small sections of a similar smaller vug that we found nearby, one we sent to Harvard University, the other we have at our home museum. And from this we "estimate" the big boy must weigh a half ton to the foot. We

hope to dig a trench, perhaps 10 to 15 feet deep, brace the vug at ground level with a triangle of timbers bolted tight against the vug on three sides, and ends resting on the rim of the trench; then perhaps half way down, another triangle of bolted timbers snug against the wall of the hole; and again at the bottom of the pit; thus protecting against sway or slide of the vug. We then believe we can drill as many holes as are necessary in a complete circle around the bottom of the vug, insert hard wood pegs several inches longer than the holes (drilled perhaps a foot into the specimen); then with a sledge hammer walk around the bottom of the pit and rap each peg in turn until the whole mass cracks around the line of the holes. This should prevent shattering the greater part of the crystal mass, and permit winching the broken off portion up into a cradle of several tons of hay on a truck, and hauling it to a professional cutting establish-

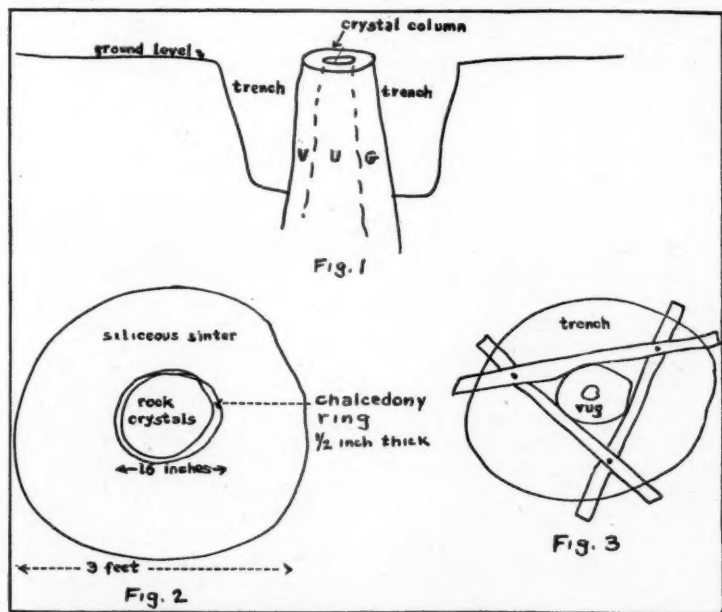


Fig. 1. Cross-section of view of vug.

Fig. 2. Top view of vug.

Fig. 3. System of cross timbers—top view

ment for slicing, like an immense Vienna loaf of bread, into as many slices from 6 inches to a foot in thickness as there are museums who wish to obtain a slice. These slices can be highly polished for a reasonable sum by the same establishment that does the sawing.

And so our query: "Have YOU a little 'dead' Old Faithful in YOUR front yard?" is not so fanciful—you CAN have one; one will make a lovely bird bath or front step, or horse block. We are all a quiver for Summer to come and us to get at the monster, and if the Editor of ROCKS AND MINERALS says so, we may have a later report on just how

we came out. We will welcome any letters, suggestions or comments on our stranger. The sawing of it is a story in itself—it is done with an iron bar a half inch wide and 3 inches high hung on two swinging bars, the rod is connected to an engine that swings it back and forth, perhaps a foot of movement, the attendant keeps a stream of water on the rod and pours fine shot in the path of the rod. Two 24-hour days of grinding may perhaps make one cut, and from then on the polishing is no great job.

EDITOR'S NOTE: The location of this gigantic vug is near the town of Opal, in Lincoln County, in southwestern Wyoming.

VIEWING A MINERAL COLLECTION

By ROBT. R.

This is not as simple a matter as it seems as it is possible to step on the owner's corns very easily. Here are a few don'ts that I have run across in the last few years, and thought I would get off my chest.

The first thing is to be glad to see his or her collection, and I have yet to see the collection no matter how poorly arranged or how poor the material that did not have something I would have been glad to have had in my own collection. At the least we can take pleasure in the owner's delight in showing what he has. This is important as it is no pleasure to show a collection when those viewing it show no interest.

If you see a specimen, you would like to handle and examine more closely, ask if you may do this and let the owner hand it to you, and when you have finished with it, hand it back to the owner, who alone knows how he wants it placed to show to the greatest advantage. This is shown best in the case of fluorescent minerals, which have been placed with the aid of a light.

The cardinal sin in viewing a collection is that of trying to see if a crystal is tight in the matrix, this is mostly done with a thumbnail. If the crystal is pried loose, fully half the value of the specimen is lost. I have a friend with a number of fine roasted gold specimens, (roasted sylvanite, etc. comes out in bubbles on top of the matrix.) He has to

watch his visitors very closely, and still would not be quick enough to stop them from seeing if the gold was tight. He now shows them to very few people.

If the owner should sell a few specimens from his duplicates, don't insist on him selling a piece out of his collection. If he does sell you the specimen, he will always remember you and regret selling it to you as even rockhounds have a certain pride. I ran into a case of this in Nevada. I arrived about an hour after some high pressured collectors had tried to make the owner sell some of his fine opalized wood, both rough and polished, with no results except to make him angry and disgusted with collectors in general. What should have been a pleasant hour's visit was partly spoiled as it took half of that to get him back into a pleasant state of mind.

And here is one that very few have thought of. In looking at a fine polished specimen, the natural thing to do is to run your hand over it to see how smooth it is. In rubbing some polished specimens, you tend to remove the high gloss, which is the final polish on a fine specimen. If you wish to see how fine the polish is, hold the specimen to the light so as to get the reflection and look for misty spots in the polished surface.

I am not fault-finding, but these are some of the most common faults in viewing a collection, especially by beginners.

FINE RARE FLORA FOSSIL

By LOUIS P. UECK

Benton Harbor, Mich.

An excellent specimen of a flower fossil was found July 4th, 1943, by the writer on a vacation trip to Grand Junction, in Southwest Michigan, on an Indian relic hunt accompanied by the writer's wife and another couple Mr. and Mrs. Harvey Franz, who are enthusiastic collectors.

The flower fossil occurs as slate (blue-black) on face-side and shale (gray) on the reverse. It is in a pebble which is approximately $\frac{1}{2}$ inch thick, and about $2\frac{3}{4}$ inches in diameter. An unusual deep embossed $2\frac{1}{4}$ inch imperfect four-petaled flower is directly in center of pebble. A close examination of the flower-mold reveals minute characteristics.

No doubt it is of the extinct flora, dating back approximately 100 million years, evolved from the non-flowering plant of the Mesozoic Era.

The writer, a member of Rocks and Minerals Association, is also a member of the Society of American Archaeology. Whenever localities fail to produce rocks, minerals, or fossils, attention is given to Indian artifacts.

Mr. Franz, a life long Indian relic collector, who made an examination of the

pebble says, "Its unusual form is due to wave action on a sandy beach, and it was brought to the camp-site from Lake Michigan shores by the Indians."

Other interesting fossils and artifacts were found on this trip but none so outstanding and rare.

It may interest readers of ROCKS AND MINERALS to know that many of the rocks and minerals the writer has in his collection have been found on wind-eroded Indian camp-sites.



The flora fossil
found by the author

CHALCEDONY FIRST FOUND IN TURKEY

Chalcedony, the popular variety of quartz, received its name from Chalcedon, an ancient Greek city in upper Asia Minor (modern Turkey), where it was first found.

Chalcedon was located in the northwestern part of the ancient province of Bithynia, at the southern approach to the Strait of Bosphorus, opposite to Byzantium, from which it was about $1\frac{1}{2}$ miles distant.

Chalcedon is the site of modern Kadi-kor (about 2 miles south of modern Scutari). Byzantium is the site of modern Constantinople (Istanbul), the largest city in Turkey. Constantinople, to the north, is in Europe; Scutari and

Chalcedon are in Asia.

Chalcedon was founded in 675 B. C. by a colony of Greeks from Megara, a celebrated ancient Greek city. Chalcedon was known in ancient days as the City of the Blind, because, being founded before Constantinople, and on a much poorer site—it was said that only the blind would have selected such a site when a much more beautiful one was present only a short distance to the north.

The ancient Greeks and Romans used chalcedony for many purposes as vases, busts, seals, gems, and other carvings. The mineral was an important article of commerce.

AN EXPERIMENT IN ROLLING STONES

By H. A. RANKIN

Fayetteville, N. C.

While I have always been interested in nature, my interest has usually been in living things and not till two or three years ago did I realize how little I knew about even the few rocks in our vicinity. Circumstances made it seem desirable that I have at least a speaking acquaintance with them, so, to make a start, I subscribed to **ROCKS AND MINERALS** then through its advertising columns purchased several books for beginners. The magazine and books have been very interesting and my only regret is that the start was not made 50 years ago.

In a chapter of one book its author picks up two pebbles and proceeds to read their life history. One of these is a smooth quartz pebble which proves particularly interesting to me because it is so well represented in our vicinity. The author tells the story of its formation deep in the earth and eventual appearance on the surface and breaking up, then an angular fragment is started down some water course and rolled or otherwise transported several hundred or perhaps a thousand miles, bumping into fellow travellers and various obstructions until it is finally picked up as a smooth rounded pebble.

There was no doubt in my mind as to the correctness of this reading, but, I did want to know something about how far an angular fragment would have to travel before it became as smooth and perfect in form as many of our pebbles, so, an experiment was planned in rolling stones. This might be more drastic exercise than the pebbles in our great beds were given, or, on the other hand, the waters may have been much more turbulent when those great beds were laid down, but at least it gives something to think about.

In this experiment a wooden cylinder was constructed about 13 inches in diameter and the same length. It was covered with wooden slats laid with small cracks between them and at an angle that would give the inside a corrugated

surface, so that the rocks would be tumbled or rolled, instead of just sliding down a smooth surface.

This cylinder, about one-fourth submerged in water, turned at a uniform rate surface rate of $1\frac{1}{4}$ miles per hour.

A large white quartz boulder from a gravel bed was broken up and 25 pieces weighing 40 ozs. were put into the cylinder, also 12 pieces of quartzite with red mineral stain were put in—these weighed 26 ozs. The experiment started Sept. 15th, 1942 and ended Nov. 20th, the cylinder revolving about eight hours per day and my record shows that these rocks travelled 489 miles. Each week the rocks were taken out, counted, and weighed.

The water used was our city water and was changed in the vat two or three times during the experiment.

The quartzite wore away quickly. At the end of 84 miles travel there were still 12 pieces but the weight was reduced from 26 ozs. to $5\frac{1}{2}$ ozs., or, 78% and at the end of the experiment there remained only one piece of quartzite weighing one oz., or a loss of 96% from the original weight.

Many of the quartz rocks broke up the first week or two so at one time there were 47 rocks in the cylinder instead of 37 as originally put in. We say this in order that the increase in one and decrease in the other may not be laid to mistaken identity. At the close of the experiment there were 34 quartz rocks weighing 22 ozs., a loss of 45%.

A few of the larger rocks showed just a little of their original angular form but were smooth; most of them were rounded or oval and smooth and were just such pebbles as we are accustomed to see, in our area, so for most of our pebbles that would seem to be the only explanation necessary. However, in all of our gravel beds there are many smooth, rounded but much flattened pebbles which seem to require explanation as to how they happen to be in this shape.

It is hard to believe that a very flat fragment could be rolled or tumbled down a stream and be worn in this form by knocking against objects.

I have been a manufacturer of wood products nearly all my life and have, therefore, used much sand paper. It occurs to me, therefore, that the abrasive power of sand, even when water borne, should be taken into account and particularly when we may consider with it the element of time, which was not taken into consideration in the rolling process.

Our pebbles are not travelling several hundred or a thousand miles on a schedule. It would be easier for me to believe that the time required for such a trip might be reckoned in hundreds or even thousands of years, than that it

would be made in a few years. We see pebbles lying on a sandbar in shallow water. They are motionless, except that occasionally we may see one move slightly as the tiny eddy of water around it washes some sand from the lower side, allowing it to tip over. All the time it is lying still on the bottom, and time doesn't matter, the sediment in the water is scouring it on one side, then when it turns over it scours the other side, a never ceasing process as long as water is flowing over it. This is the only way, it seems to me, to account for the flat pebbles, and, if it is correct, it must operate on all alike and the round, or oval, pebble might only indicate that it had made a faster trip.

PLASMA FIRST FOUND IN TURKEY

Plasma is a leek-green to dark grass green variety of chalcedony (quartz). In ancient times it was called prasius, from the resemblance of its color to the peculiar green of the leek (a plant of the onion family); later it became known as prasma, and finally its modern name, plasma.

Plasma is an ancient mineral (any mineral which does not end in *ite* is old). It was first found at Prusa, in Asia Minor, at the foot of Mount Olympus. It was much esteemed by the ancients who cut and polished it for gems.

Brusa, Broussa, or Bursa (ancient Prusa), a city (61,000 pop.) of Asia Minor, in Turkey, is pleasantly situated at the north base of Keshish Dag (Mount Olympus), about 60 miles south

of Constantinople (or 20 miles from the Sea of Marmora). The city is divided by ravines into three sections, and in the center, on a bold terrace of rock, stood the ancient Prusa. The ravine of the Gauk Derek, in the city, is much visited by tourists, and the curious bridge which crosses it has received special attention.

The ascent of Keshish Dag (Mount Olympus), which is about 7,000 feet high, requires six hours but the views from its summit are exceedingly wonderful.

Near the city are four hot sulphur springs, which were celebrated in ancient times; these to this day are still used for bathing.

Brusa is a beautiful city with many architectural masterpieces.

WOULD YOU GIVE MORE THAN \$2 PER POUND FOR CLEAR CRYSTALS?

Readers of ROCKS AND MINERALS will recall the article on mining crystals at Mokelumne Hill, California,¹ where many years ago the world's most famous and beautiful quartz crystals were found. The mine was opened up about a year ago at considerable expense in response to the Government's urgent call for crystals with piezo-electric qualities for war purposes.

After months of work and expense a number of very clear crystals were again found at Mokelumne Hill, including one of 610 lb. weight. Altogether, the Calaveras Crystal Min-

ing Company sent 1,000 lbs. of crystals to the stock pile at Washington, D. C. The government offered the "munificent" price of \$2 per lb., although millions of dollars have been paid for crystals imported from Brazil. The Calaveras Crystal Mining Company naturally rejected the Government's offer, and requested that the shipments be returned.

¹How would you like a 600 pound crystal for your gem collection? By T. Orchard Lisle, ROCKS AND MINERALS, March, 1944, pp. 78-79.

PETRIFIED WORMS

By ELLEN EARL

The early bird doesn't always get the worm. Last year, we visited a friend who is a Lapidarist, Mr. R. I. Martin of Saratoga, Wyoming.

He has a fine collection of petrified woods, which he has collected from all parts of the middle west. He showed me many pieces of wood having worm holes, then picked up one piece and said, "This one is special."

"How come?" I asked.

"This one has a worm hole in which the worm stayed too long. He became petrified also."

I asked him, "Where did you find your special?"

"In the Red Desert," he replied.

The piece of wood is about 2 or 3 inches long and about an inch thick and the worm can be seen on both sides of the wood.

It is truly an unusual specimen. One worm that the early bird did not catch, but one that was cataclysmized along with a bit of forest.

The Red Desert is in Sweetwater County of southwestern Wyoming.

Sweetwater County is also noted for its beautiful moss agates).

In October, 1943, Mr. Martin, wife, daughter, and daughter-in-law made an-

other trip to the Sweetwater district, to gather a new stock of petrified woods and Sweetwater moss agates. He had quite an interesting day. When about three miles from the spot they desired to reach, they encountered a big sign which read: "Warning. Danger. U. S. Aerial Gunnery Range." However, no one offered to stop them, so they kept going and eventually reached their favorite agate-hunting grounds. They obtained a nice bunch of agates, but did not stay as long as they had expected, for the reason that every few minutes a plane would go along overhead pulling a target, and fighter planes would follow, blasting at the target with machine guns. Mr. Martin said that it was very interesting, but decidedly dangerous when one of the fighter planes would go above the plane and shoot down at the target. They soon decided they had enough Sweetwater agates to do them for the "duration" and moved out into a more healthful atmosphere.

It just goes to show the dangers a man will encounter in order to pick up one more beautiful specimen. The Sweetwater agates are of the finest quality.

JET FIRST FOUND IN SYRIA

Jet is a soft, compact, lustrous black variety of brown coal (lignite) which can be highly polished for ornamental purposes.

It was first found in Syria (in Asia Minor) many centuries ago and to the ancients it was known as gagates—a name derived from the river Gagas, about whose mouth it was found. The

Gagas River was in the province of Lycia, in Syria.

The mineral has been used for many purposes, but chiefly for ornaments, jewelry, and medicines. For centuries it was called gagates, gagat, or black amber. Its modern name, jet, comes from the French (jaïet or jayet).

Nickel Ore Mined in Cuba

Havana—A former jungle area near the town of Nicaro is now producing 5,000 tons of nickel ore a day for the United Nations war effort. The ore, lying on the surface for a depth of from 12 to 50 feet, contains 45 per cent iron,

some chromium and cobalt and from one to three per cent nickel. The deposit is being worked by the Nicaro Nickel Company on behalf of the United States Metals Reserve Corporation.

DIAMONDS IN FICTION

"THE KING OF DIAMONDS" by LOUIS TRACY

By E. W. BLANK

Jersey City, N. J.

The writer has previously directed attention to a highly diverting novel dealing with diamonds (1). Recently another such novel came to his attention. It is "The King of Diamonds" by Louis Tracy, published by Ward, Lock & Co., Ltd., of London. The date of publication is not given but the book appears old and presumably was published some years ago.

It is an exciting tale of the fall of a meteorite into the center of London, its discovery by a lad and the altogether astounding disclosure that it is diamond bearing. Microscopic diamonds have been found before in meteorites. The book refers to various meteoritic falls and their history but points out that the diamonds were invariably microscopic and of academic interest only. However this meteorite was different.

Some idea of its singularity may be obtained from the following paragraph which describes the agitation of Mr. Isaacstein, a leading diamond expert of London.

"Samuel," he murmured, "take charge, please. I'm going home. I want to rest before I start for Harwich. And, Samuel!

"Yes, sir."

"Whilst I am away you might order another scales. In future we will sell diamonds by the pound, like potatoes."

The reader will be interested in following for himself the unfolding of the tale. No doubt he will be as equally at a loss to explain the meaning of Blue Atom as the present writer was until the very end of the story!

(1) "The Diamond Master," ROCKS AND MINERALS 17, 241 (1942).

American Scientists Pioneers In Ore Microscopy

Editor R & M:

I have been so busy with war work that I am five or six months behind in my reading, so did not look through the November, 1943, issue of ROCKS AND MINERALS until yesterday. I was then surprised to read in the note that heads the article on "Ore Microscopy" by Prof. W. R. Jones of the Imperial College, London, that the article "deals with an important branch of research in which British scientists have made some interesting investigations in recent years (italics are mine)".

The fact of the matter is that "mineralography", "opaque microscopy", or "ore microscopy" is over a quarter of a century old, and its development was due almost entirely to the investigations of American, not British, scientists.

The pioneer research in this subject was done by J. Murdoch, and his book entitled "Microscopic Determination of the Opaque Minerals" was published in New York in 1916. W. L. Whitehead published some "Notes on the Technique of Mineralography" in 1917, and, in 1920, W. M. Davy and C. M. Farnham published in New York their text entitled "Microscopic Examination of the Ore Minerals". In 1922 and 1923, respectively, textbooks on the subject appeared in Berlin and The Hague, and in 1931 Dr. Max N. Short published his authoritative manual

on "Microscopic Determination of the Ore Minerals" as U. S. Geological Survey Bulletin No. 825.

Not only have Americans led the way in establishing and developing this branch of science through their publications, but it has long been taught in American colleges. For instance, a course in "The Microscopic Study of the Opaque Minerals" was first offered in the University of Arizona in 1923-24. It was taught by Dr. Frank N. Guild through 1931-32. Since then, Dr. Max N. Short has held a professorship in the University, and has taught classes in "Microscopic Study of Opaque Minerals" and "Advanced Opaque Microscopy". A considerable proportion of the Arizona mining and geological graduates of the past decade and a half have been trained to use "ore microscopy" in connection with milling operations, and in other ways.

Very sincerely,

May 5, 1944

G. M. Butler

University of Arizona

Editor's Note: Dr. Butler's letter does not claim that the University of Arizona offered the first course in this subject in 1923. He merely mentions the date as proof that it has been taught in this country a long time. It is quite possible that other American colleges may have offered a similar course before 1923.

Club and Society Notes

Mineralogical Society of the District of Columbia

A field trip to the trap rock quarries of Paterson, N. J., was held on Sun., June 4, 1944. The world-famous New Street quarry was first visited where specimens of calcite, pectolite, and prehnite were collected. Later the working quarry of the Consolidated Stone & Sand Co., at Great Notch (about 3 miles south of the business section of Paterson) was visited. Here a large number of minerals were collected among which were excellent specimens of amethyst, calcite, chrysocolla, heulandite, malachite, and stilbite.

The group of 15, under the leadership of Messrs. C. H. Robinson, and French Morgan, President and Secretary, respectively, were joined in Paterson by Messrs. O. W. Bodelsen and Peter Zodiac, President and Secretary, respectively, of the Rocks and Minerals Association. The trip to Paterson was made by train; around Paterson by bus.

Southwest Mineralogists

Just to keep you up to date with our activities, we have recently elected new officers for the year June, 1944—June, 1945, as follows:

President, Sam Boase
Vice-President, George Schwarz
Corres. Secretary, Jeane Lippitt
Recording Secretary, Alwilda Dartt
Treasurer, Florence Vercellone

and we are looking forward to another interesting and enjoyable year with our hobby.

Dorothy C. Craig,
Corres. Secretary

Nebraska Mineralogy and Gem Club

At the annual meeting of the Nebraska Mineralogy and Gem Club, new officers elected were: President, E. J. Weyrich, Plattsmouth, Nebr.; Vice-President, Dan H. Dunham, Omaha; Secretary and Treasurer, Bertha C. Minardi, Omaha; Board Members, J. L. Freeman, Omaha; E. F. Andrews, Omaha; Sharpe Osmundson, Council Bluffs, Iowa; A. B. Nau, Omaha.

Bertha C. Minardi, Sec'y

Mineralogical Society of Utah

The Society recently released its official journal, *News Bulletin of the Mineralogical Society of Utah* (Vol. 5, No. 1, March, 1944). Among the interesting articles appearing in this issue are: A new habit for calcite illustrated (by Arthur L. Crawford); A short history of the organization of the Rocky Mountains Federation of Mineral Societies (by Richard M. Pearl); Mineral miniatures (by Arthur L. Flagg); How I became interested in minerals (by Humphrey S. Keithley); A brief on gemstones and gem cutters (by M.

Barrie Berryman); Mineralogical Society of Utah—when and how (by Olivia McHugh); Variscites and phosphates in Utah (by Junius J. Hayes).

The *Bulletin* contains 55 pages and copies (if available) may be obtained from the Treasurer, Mrs. Lillian M. Lockerbie, 223 W. 9th S., Salt Lake City, Utah.

Honoring Frank L. Fleener

Since its organization seven years ago, the Annual Spring Banquet of the Wisconsin Geological Society has been the event of the year. This year was no exception. It was held on May 13, 1944, at the Y. M. C. A., in Milwaukee, Wisc.

Prof. Frank L. Fleener, of Joliet, Ill., delivered the address of the evening on "Minerals and Civilization." The speech was timely and chuck full of information from start to finish.

It was presented in the forceful friendly manner that only Prof. Fleener can use.

Everyone had the feeling of being lifted to a higher level of knowledge and friendship.

The Wisconsin Geological Society prepared a little surprise for Prof. Fleener for three reasons, 1st. He is president of the Midwest Federation of Geological Societies, 2nd. His kindly and benevolent nature, 3rd. For his contribution to mineralogy as co-author with Ben Hur Wilson and H. C. Dake of the book "Quartz Family Minerals."

The Milwaukee Public Museum contributed a number of quartz minerals which were used with American flags and a copy of "Quartz Family Minerals" as table decorations.

Elmer R. Nelson, Curator of Geology, Milwaukee Public Museum, acted as toastmaster.

Dr. John R. Ball, of Northwestern University, after calling attention to the table decoration, introduced Prof. Fleener.

Forty-five members and guests attended the banquet. All agreed that it was the most successful so far.

Mrs. J. O. Montague,
Sec'y. & Treas.

All Members of the R. & M. A.

Editor R & M:

Thank you for mentioning our Club (Junior Mineral Exchange) in *ROCKS AND MINERALS*. Through it we have secured members from two more states, making seven states in all.

We are proud of the fact that all our members are also members of the Rocks and Minerals Association.

I am enclosing the May issue of our *Bulletin*.

May 17, 1944

Jerome Eisenberg, Sec.
77 Victoria St.,
Revere 51, Mass.

With Our Dealers

Vreeland Lapidary Mfg. Co., of Portland, Ore., are headquarters for lapidary supplies. Some of the many items carried in stock are featured in this issue. Now is the time for cutters to get needed, vital supplies!

Collectors' items—embracing huge quantities of archaeological materials and fossils, and many nice specimens of fluorite from Illinois-Kentucky—are offered collectors by Col. Fain White King. Incidentally, Mrs. King is the author of a very fascinating book, "Under Your Feet", a story on American Mound Builders, which should be in your library.

The H. E. Powell Co., of Little Rock, Ark., are featuring "New Mineral Offerings" in this issue. Of course you will order some of the nice specimens listed!

Smith's Agate Shop, of Portland, Ore., announce that they have become agents for the new high speed diamond saw manufactured by the American Diamond Saw Co. This announcement should be of great interest to our cutters!

A new variety of agate, also a laminated obsidian, are offered cutters this month by the West Coast Mineral Co., of La Habra, Calif.

Selected Mineral Specimens—one of a kind only—are featured this month by Schottmann's Minerals, of Easthampton, Mass. Do your selecting early!

The "Streamliner" diamond saws, manufactured by Wilfred C. Eyles, of Bayfield, Colo., continue to receive praises from cutters. See what two cutters say in this issue!

A number of "Selected Specimens" are set aside for our readers this month by Ward's Natural Science Est., Inc., of Rochester, N. Y. But don't wait too long in selecting your specimen!

Minerals that glow in the dark! These will make a hit with fluorescent collectors. Oh, yes, they are in the stock of Warner & Grieger, of Pasadena, Calif.

Western Mineral Service (formerly the Gem Shop) of Helena, Mont., send us the sad news that they are quitting the sale of mineral specimens. We do hope that Mr. Harstad, the proprietor, who has had many long years experience in the mineral speci-

men business, will reconsider his decision and be back in harness again.

Norman Seward, of Melbourne, Australia, informs us that his supplies of rough Australian opals are practically exhausted due to the fact that the opal mines have been abandoned, at least for the duration. Many American soldiers, stationed in Australia, have visited him and made large purchases, which further decreased his diminishing supplies. Collectors will now know why Australian opals are getting scarce.

More quartz crystals are offered this month by J. L. Davis, of Hot Springs, Ark. These crystals are always popular with collectors.

A few months ago a most interesting mineral—jet-black hematite stalactite—was discovered in Bisbee, Ariz. Wiener Mineral Co., of Tucson, Ari., has a nice supply of them!

Gem Village may be the new name for the Rock Hound Colony near Bayfield, Colo. For further particulars inquire of the Colorado Gem Co., Bayfield, Colo.

Frank Duncan, of Terlingua, Texas, is back in the mineral business again. His daughter, Mrs. Kathleen Kitchell, is assisting him.

Do you want any giant-size rock crystals? The Ozark Biological Laboratories, of Hot Springs National Park, Ark., have a number in stock. How many, please?

Chas. O. Fernquist, of Spokane, Wash., has moved from W. 410 Riverside Ave., to 333½ W. Riverside Ave. He needed larger quarters for his increased business.

Jno. B. Litsey, of Dallas, Texas, has acquired a number of excellent minerals though of small size, due to many inquiries for such small specimens.

New Find of Crocidolite in Massachusetts

Editor R & M:

If you remember the old crocidolite find in the Quincy granite quarries, you will be interested to know that one of my pupils has just discovered a vein containing a large amount of the mineral. The specimens he turned over to me today are 4"x6"x½" in size and are the best I've seen in recent years.

George A. Wilson
Quincy, Mass.

April 26, 1944

Classified Advertisements

WORLD'S BEST WANT AD. MEDIUM FOR MINERALS

Rate 3c per word; minimum 20 words. Remittance must accompany copy in all cases. Advertisers must furnish satisfactory references before their advertisements will be inserted. Forms close the 1st of every month.

BOOKS

Handbook For the Amateur Lapidary by J. H. Howard, 16 chapters covering all phases of gem cutting and polishing, 141 pp., 14 illus., price \$2.00. J. H. Howard, 504 Crescent Ave., Dept. R., Greenville, S. C.

How to Collect Minerals. By Peter Zodac. A guide book for the collector. 80 pp., 15 illus., \$1.00. Rocks and Minerals, Peekskill, N. Y.

History and Geology of the Royal Gorge, an illustrated souvenir booklet with maps and drawings locating 54 minerals for touring collectors. 50c postpaid. F. C. Kessler, Cannon City, Colo.

EXCHANGES

Fifty Mineral Species mostly from New England localities for exchange. Rare species for advanced collectors. Rare minerals preferred. No polished specimens or fossils wanted. Gunnar Bjareby, 147 Worthington Street, Boston 15, Mass.

Have you mineral specimens you would like to trade? We have many New England species and duplicates from two years of trading. Correspondence invited from all collectors who have mineral specimens to swap. M. W. Wall, 10 High St., Boston, Mass.

FOSSILS

Fossils, Minerals, Old Arms, Indian Beaded Trappings, prehistoric specimens, general line of curios. Lists 10 cents. N. E. Carter, Elkhorn, Wisc.

METEORITES

I Will Pay Highest Prices for meteorites, iron or stone, or any specimen of native (metallic) iron whether believed to be meteoric or not. S. H. Perry, Adrian, Mich.

MINERALS

Catseye—The fine gem our boys are sending home from the southwest Pacific. Very easy to polish. Rough 50c each, three for \$1.00. List free. Gem Exchange, Lake Bluff, Ill.

Scott Rose Quartz Co.—Rose Quartz Black Hills specimens, all kinds and colors; for rock gardens, cabinets, etc. Boxes: 24 specimens \$1.00; 18 specimens, 50c; 15 specimens, 35c. Postage paid. Box 472, Custer, S. Dak. Send stamp for price list.

25 Beautiful, Colorful Ozarks 2½" to 3" specimens including chalcedonies, jaspers, calcites, onyxes, cherts, drusy and milky quartz crystal clusters, oolites, fossils, flints, breccias and three cutting and polishing materials. Sent postpaid for \$2.00. John Jennings, Eureka Springs, Arkansas.

Gem Jasper from Indian Ridge, Ohio. Beautiful pastel colors. Make Lovely Cabochons 2 ounces rough for only 25 cents, or \$1.50 per pound postpaid. James W. Riley, Route No. 2, Springfield, Ohio.

Minerals, Fossils, Gems, Pistols, Glass. Indian relics, beadwork, curios, Old West photos, stamps, coins, bills. Catalogue 5c. Cowboy Lemley, Las Cruces, New Mexico.

Louisiana, Arkansas, Texas, rocks, minerals and petrified wood for sale or specimens to trade. Write for list and prices. W. M. Dickinson, 673 Egan St., Shreveport 12, Louisiana.

Large Dark Purple Amethyst Crystals containing gold, bright sparkling clusters of pyrite crystals; Mt. Mica, Maine tourmalines, 75c-\$2.00 postpaid. Ellenville, N. Y., quartz crystals, 50c up. Monroe Mineral Store, Monroe, N. Y.

